



## TR4 Q&A



### **What is TR4 (Tropical Race 4)?**

TR4 (sometimes called 'Panama disease' even though it is not currently in Panama) has a scientific name – *Fusarium Oxysporum* f. sp. *Cubense*. It is a soil-borne fungal disease that affects the plants of Cavendish, Lady Fingers and plantains.

### **How does it affect the plant?**

The spores germinate and send hyphae into the plant roots. The fungus then blocks the vascular tissue carrying water and nutrients.

### **How is it spread?**

Spores can be spread via soil, water and planting material. Spores can survive up to 30 years, even without a banana plant host.

### **Is it safe to eat a banana or plantain that comes from an affected plant?**

Yes the fruit from a TR4 affected plant is safe to eat.

### **Does Fyffes have any affected farms?**

None of the Fyffes farms, either owned or third-party, are impacted by TR4.

### **What is Fyffes doing to protect farms from TR4?**

Fyffes is taking all the precautionary measures to protect its own farms and its suppliers' farms from TR4 in all the countries it sources from. Under strictly controlled conditions the disease moves slowly as it is transmitted through soil and only absorbed through the roots. Fyffes has implemented biosecurity measures on our own farms and prevention procedures for our workers' daily routine, which we continually review.

Fyffes biosecurity protocols are based on international best practice biosecurity and phytosanitary practices. Details of our biosecurity measures

and protocols can be found in our TR4 Biosecurity Guidelines. We are careful to avoid unnecessary visitors to farms and we discourage travel by our people to countries and areas where the disease is prevalent. We ask that employees notify us of any travel to these regions and assess whether that travel has posed a risk to our business.

### **How does Fyffes ensure its suppliers apply strong biosecurity measures?**

Fyffes suppliers are required to include the TR4-Biosecurity Add-On For Bananas in their next Global G.A.P. audit.

Fyffes works closely with its suppliers of bananas and plantains to reduce the spread of this disease. We work with partners such as the Belize Growers' Association (BGA) and Corporación Bananera Nacional (CORBANA) in Costa Rica to help protect these sources of supply. A good example of how Fyffes works with suppliers is how we engage with financial institutions to secure financing for suppliers' biosecurity infrastructure, such as zoning fences and vehicle washdown facilities.

### **What is Fyffes doing to protect its business?**

Fyffes is working hard to reduce the speed of the spread of TR4 as well as investigating alternative banana variants.

The banana industry can benefit from cooperating on this issue and Fyffes has been a participant on the TR4 Task Force at the World Banana Forum since it began.

Fyffes played an instrumental role in the development of the GlobalGAP TR4 add-on launched in 2017, which increases awareness and verifies bio security measures at our suppliers' farms.

We are also closely monitoring innovative bio-diverse banana production, such as the initiatives at some of our suppliers, including Earth University in Costa Rica.